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Pregnancy and preterm birth: Experiences of men of color who are partners to women at medical and/or social risk

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Pregnancy and preterm birth: Experiences of men of color who are partners to women at medical and/or social risk

by

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Pregnancy and preterm birth: Experiences of men of color who are partners to women at medical and/or social risk

by Brittany Nicole Edwards

Abstract

Background: Causes of preterm birth (PTB) in the United States are not only influenced by maternal factors such as diabetes, but also social factors including ethnicity and socioeconomic status. In California, 9.6% of all live births are preterm, with rates disproportionately affecting women of color. The impact of paternal factors on birth outcomes have been studied, but little is known about the experience of men of color (MOC) who are their partners.

Objectives: The objective was to explore the experiences of MOC who are partners to women at risk for PTB through the following questions: (1) What are the personal experiences of MOC during female partner's pregnancy, birth, and the first few months after birth? (2) How do MOC perceive the impact of their social environment, and their own mental and physical health on their partner's pregnancy, birth, and postpartum periods? (3) What do MOC perceive as barriers and facilitators to having a healthy pregnancy?

Design: This research thesis was of qualitative design using focus group methodology. This study was embedded within a parent study conducted by the California Preterm Birth Initiative exploring experiences of women of color at risk for PTB.

Results: The following four themes emerged from thematic analysis: (1) "Being the Rock": Providing comfort and security; (2) "It's a blessing all the way around": Keeping faith during uncertainty; (3) "Tell me everything": Unmet needs during pregnancy and delivery; (4) "Like a guinea pig": Frustration with the healthcare system

Conclusions: This research revealed a new and shared narrative of MOC's experience during pregnancy, birth, and postpartum periods. Healthcare providers have an essential role to acknowledge MOC's experience of discrimination, mistrust, and to assess needs for support which can improve birth outcomes.

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Introduction

Statement of The Problem

Every year, more than 15 million babies worldwide are born premature (WHO, 2016). Babies who are premature are at increased risk for neonatal infection, and other comorbidities including infant death before they reach their first birthday (WHO, 2016). In the United States (US), causes of preterm birth (PTB) are not only influenced by maternal health factors, such as high blood pressure and diabetes, but also social factors including ethnicity, socioeconomic status, and chronic stress (Tsai et al, 2017). A current report from the March of Dimes (MOD) (2016) states that in California, 9.6% of all live births are preterm, with rates disproportionately affecting women of color (WOC). Specifically, African American and Black families have 48% higher rates of PTB than all other families in California (MOD, 2016). Researchers are learning valuable lessons from listening to the voices of WOC who have been disparately impacted by systems of injustice and discrimination (Goode, 2014), but little is known about the experiences of the men of color (MOC) who are their partners.

The impact of paternal factors on pregnancy and birth outcomes has been rigorously studied. Paternal mental instability, negative health behaviors, and poor relationships with the mother all have been linked to increased rates of PTB (Ihongbe & Masho, 2017). It has been found that low birthweight and PTB outcomes decrease with father involvement (Ngui, Cortright, & Blair, 2009). Furthermore, WOC attest to the benefits of father involvement which lead to decreased family strain and maternal stress (O'Brien, Quenby, & Lavender, 2010). Narratives are spoken about MOC by others, however, what do these fathers say for themselves?

By listening and learning from the experiences of MOC, deeper insight and appreciation will be attained, to further develop interventions that may improve birth outcomes and prevent PTB.

Background and Significance

The role of the father in the family unit has been the source of conversation and debate for many years (Roy, 2008). Sociologists and investigators have become more aware of the impact of paternal involvement and absence on birth outcomes and across the life span. During the postpartum period, paternal involvement improves cognitive and socio-behavioral development of the newborn including increased weight gain and breastfeeding rates (Garfield & Isacco, 2006). Paternal absence has been shown to negatively impact children's emotional development, mental health, and educational attainment (McLanahan, Tach, & Schneider, 2013).

Unfortunately, an increasing trend of paternal absence is seen in low-income and communities of color in the US (Roy, 2008). Investigators have speculated that this may be largely due to systemic and institutional policies such as unjust policing systems or assistance programs giving low-income mothers financial incentives for living alone (Ball, 2009; Hogan, 2004). Men of color are more likely than White men to live in poverty, reside in polluted environments, be exposed to toxic substances, experience violence, and work in dangerous occupations (Griffith, 2015). The accumulation of trauma and stress on MOC disparately impacts not only themselves, but their families (Griffith, 2015). Paternal absence for families of color may lead to even greater risks for negative birth outcomes. For example, in one study (Alio et al, 2011), the risk of infant mortality for Black families was found to be four-fold higher in comparison to White families with absent fathers.

Whether MOC are involved or not, little is known about their own experience during pregnancy and as fathers. Due to the lack of MOC perspective, others have made and accepted

narratives about MOC during fatherhood. Since the 1930's, the same stories have been told about Black men in America as absent and endangered (Brown, 2011). This narrative has been accepted but does not reflect actual experiences of Black men themselves (Brown, 2011). Sociologists recognize that social and behavioral research on fatherhood is based on White, middle-class families, also excluding Latino perspectives (Parke et al, 2004). Similarly, scholars call for more research on experiences from fathers of Indigenous origin where government policies and interventions have completely disrupted communities (Ball, 2009). Thus, filling this gap by listening to the experience of MOC during pregnancy is critical. Without their collective voice, incorrect assumptions will continue to dominate research and health interventions for MOC and their families will continue to be limited.

Thesis Aim and Research Questions:

The overarching aim of this research thesis was to explore the experiences of MOC who are partners to women at risk for PTB through the following research questions:

1. What are the personal experiences of MOC during pregnancy, birth, and the first few months after birth?

2. How do MOC perceive the impact of their social environment, and their own mental and physical health on their partner's pregnancy, birth, and postpartum periods?

3. What do MOC perceive as barriers and facilitators to having a healthy pregnancy?

Operational Definitions

For purposes of this study, the following definitions were specified:

1. Men of Color (MOC)/Women of Color (WOC)/ Person of color (POC) – Men, women, and people of color are defined as individuals in the US who self-identify as

Black, Hispanic, Asian, Indigenous, and other ethnicities other than White, European or Caucasian.

2. Preterm birth- Babies who are born before 37 completed weeks of gestation
3. Social (environmental) versus medical risk of PTB –Social risk of PTB refers to social and environmental determinants that have been found to increase risk of PTB, such as racism and chronic stress (Misra, Strobino, & Trabert, 2010). Medical risk of PTB refers to maternal physiological risk factors such as previous preterm birth, short cervical length, and infections during pregnancy (National Institutes of Child Health, 2017).

Conceptual Framework

Critical Race Theory (CRT) was birthed out of the minds of legal scholars and activists to uncover the relationships between "race", racism, and power (Delgado, 2017). This particular theory provides a unique perspective to explore the experience of MOC. With this lens, investigators can better appreciate the entire experience of identifying as a POC living in the US that may be missed using other frameworks. Figure 1 shows core elements and framework of CRT. Critical race theory has the following major elements; 1) The centrality of race and racism in society, 2) The challenge to dominant ideology, 3) The centrality of experiential knowledge, 4) The interdisciplinary perspective, and 5) The commitment to social justice. This theory recognizes that racism is engrained in American society and a common experience of most POC, although "race" is a product of social thought with no biological foundation (Delgado, 2017). The oppression placed on POC in the US has many components that can be understood through the concept of intersectionality, where layers of oppression may be multiplied depending on how

one presents (Delgado, 2017). This thesis drew primarily from CRT elements of challenging the dominant narrative and the centrality of experiential knowledge to explore experiences of MOC.

Critical race theory acknowledges the fact that some voices are more powerful and have more influence than others. It explores why POC have fundamentally different experiences living in America, and advocates that sharing their narrative and challenging the dominant narrative, will help everyone respond to make change (Delgado, 2017). Sharing narratives will also help POC feel validated, and further display the "reality of Black and Brown lives" in the US (Delgado, 2017).

Critical race theory has been applied to change the narrative of research on birth outcomes for WOC. The scientific community realizes there is an urgent need to explore why these disparities exist. Midwives, researchers, and other healthcare providers (HCPs) have learned invaluable lessons from listening to the experiences WOC during pregnancy and birth. Women report that autonomy and shared-decision making during the perinatal period is particularly important, and these factors deeply impact maternal satisfaction and birth outcomes (Vedam et al, 2017). Socially disadvantaged women desire to engage in discussions with their maternity care providers but report not feeling safe or in control of decisions being made (Ebert, Bellchambers, Ferguson, & Browne, 2014). Researchers identified that chronic stress due to racial discrimination negatively impacts maternal outcomes (Goode, 2014). Specifically, WOC who report experiencing discrimination were found to have higher association of PTB (Rosenberg, 2002). By sharing their stories, WOC called attention to this neglected experience, gave it a name, and collectively make an impact to help guide further research.

As the experience of MOC during pregnancy and birth is viewed through the lens of CRT, it recognizes that racism and discrimination are engrained within our institutions and

health systems. MOC can experience oppression in different degrees or intersections (Delgado, 2017) depending on how they present for care. By highlighting the CRT elements of experiential knowledge and dominant ideology, the voice of MOC and unique experiences during pregnancy can be heard, which may challenge the dominant narrative. According to CRT, if an experience from those without power is not shared, the dominant narrative will remain (Delgado, 2017). In what ways do our institutions and systems cause MOC to experience racism or discrimination? What are their experiences while interacting with health systems and what concerns them most about their partner's pregnancy? Critical race theory provides a framework to build upon this exploration.

Review of the Literature

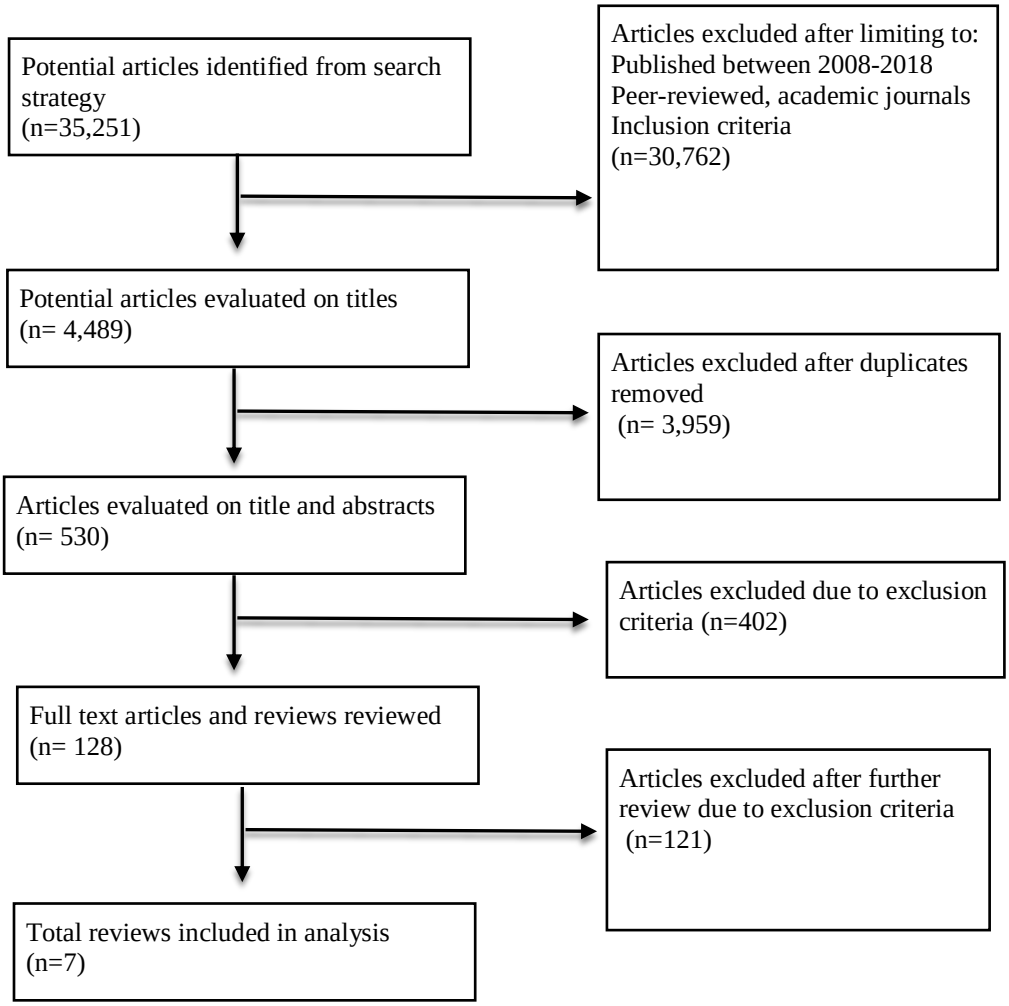
To explore current research available on the experiences of MOC during pregnancy, childbirth, PTB, and in the neonatal intensive care unit (NICU), a critical review was conducted using the SPIDER tool (Cooke, Smith, & Booth, 2012). This search tool is used for qualitative research and takes into account sample, phenomenon of interest, design, evaluation, and research type (Cooke, Smith, & Booth, 2012). PubMed, Embase, CINAHL, and PyschINFO databases were searched using the following search terms: men's and father's experience, male involvement, paternal support, men of color, minority groups, African American, Hispanic American, Latinx, Asian American, Native, Indigenous, pregnancy, preterm, prematurity, and neonatal intensive care unit, focus group, interview, and qualitative. Initially, a total of 1,976 articles were found within the databases. Titles and abstracts were reviewed for inclusion if they reported on experiences of MOC during pregnancy, childbirth and PTB, were of qualitative design, written in English and published after 2008. Some studies explored experiences of men from specific subgroups, such as adolescents in juvenile systems, alcohol and substance abuse

during pregnancy, or partners with STI exposures. However, these articles did not meet overall criteria and were excluded for the following reasons: reported on women's experience, adolescents, men living outside of US, experiences outside of pregnancy, reported on couples and unable to distinguish male voice, not written in English, or reported on irrelevant themes such as family planning methods, partner violence, STI prevention, and abortion. All articles within the initial search were excluded. Thus, the population of interest was expanded to include men of every ethnicity and over 35,000 potential articles were found. Moreover, all of the primary research studies meeting the inclusion criteria were also found to be included and critiqued in subsequent literature review papers. Thus, the inclusion/exclusion criteria for this research were further restricted to literature review articles of published peer-review studies. Table 1 includes adjusted inclusion and exclusion criteria. Figure 2 displays search strategy and included studies.

Table 1: Inclusion and exclusion criteria for included studies

Inclusion criteria	Exclusion criteria
Articles reporting on previously published research regarding the overall experience of men, 18 years of age or older, during pregnancy, childbirth, and the early postnatal period, including NICU	Articles reporting on mother's experience only or unable to distinguish men's voice in "couples" or "parents"
Full text, English language Literature reviews published after 2008	Abstracts reporting on irrelevant themes outside of pregnancy, (family planning or STI prevention) or study results from interventions with men Men 18 years of age or younger
Qualitative literature synthesis or integrated literature review	Quantitative literature review or meta-analysis

Figure 2: Search strategy results



Overall, seven literature reviews (LRs) were identified and included for final analysis. Three of the seven LRs reported on the experience of fathers during normal pregnancy and childbirth. Poh (2014) synthesized men's experiences during pregnancy from the largest sample of fathers from around the world, while Kowelessar (2014) was the first review to report on the experience of first-time fathers. Steen (2011) focused on father's experiences who live in high resource settings. The following four LRs synthesized studies on men's experiences of trauma

during pregnancy (Elmir & Schmied, 2015), mental health (Lever Taylor, Billings, Morant & Johnson, 2017), PTB and their experience in the NICU (Al Maghareh, Abdullah, Chan, Piaw & Al Kawafha, 2016; Provenzi & Santoro, 2015;). In total, 94 individual studies and over 3,200 participants contributed to the LR findings. Male participants represented many countries around the world, however the majority of studies were conducted in the United Kingdom (UK), Sweden, and Australia. The included studies used various qualitative methods including grounded theory, phenomenology, descriptive design, and longitudinal ethnography. Data collection methods also varied with a majority being focus groups, semi-structured interviews and surveys. Details of study designs, methods, characteristics of studies, and conclusions are found in Appendix 1.

Quality Appraisal

Currently, there is no gold standard appraisal tool for the analysis of the quality of qualitative LRs. Thomas and Harden's (2008) criteria are commonly used and allow for the assessment of qualitative reviews by critiquing content reporting, strategies, and appropriateness of methods and data collection. Appendix 2 displays results of the quality assessment of the seven LRs using these criteria. All seven LRs were of medium to high quality. All but one study, (Poh, Koh & He 2014) used a study critique tool to evaluate included studies. Literature findings were reported as major themes and grounded in participant perspectives. All reviews reported aims, context, rationale, methods and findings. Therefore, all seven LRs were deemed appropriate to use in this analysis.

Pregnancy and Birth

Three of the LRs, which included 61 individual studies, explored men's experiences during normal, full-term pregnancy and childbirth. During pregnancy, most first-time fathers

experience a transition during pregnancy, from an initial apprehension to acceptance of the pregnancy (Kowelessar, 2014). This journey comes with both physical changes, like symptoms of pregnancy (Kowelessar, 2014), and emotional or behavior changes (Poh, Koh & He 2014). Men value the transition to fatherhood and desire personal improvement, such as quitting negatives habits and becoming conscious of their own lifestyle (Poh, Koh & He 2014). Most fathers see themselves as a valued partner to their pregnant partner, with a strong desire to support and engage during pregnancy and birth (Steen, 2011). An accumulation of emotions is usually expressed at the birth of their child when men are overcome with emotion and sometimes anxiety (Poh, Koh & He 2014).

When interacting with healthcare providers (HCPs), fathers have a variety of experiences. Most men have positive experiences when they are they are acknowledged through father-directed interventions such as skin-to-skin and kangaroo care (Steen, 2011). Negative experiences occur when HCPs fail to acknowledge the father's role or encourage engagement (Steen, 2011). Interestingly, all three reviews discussed exclusion as a major theme in men's experiences. Fathers report feeling distant and separated in a "mother-centered" system and needing more information to help support their wife or partner (Kowelessar, 2014; Poh, Koh & He 2014; Steen, 2011). The way in which information is provided impacts fathers' experiences as well. For example, some fathers expressed further exclusion after attending birthing classes where midwives and HCPs desired inclusion (Poh, Koh & He 2014). Most fathers, whether it is their first pregnancy or not, saw themselves more than a passive supporter and wanted to be fully engaged (Kowelessar, 2014). This experience of exclusion was also felt by men living in high resource settings who named their experience an "undefined space" in maternity care (Steen, 2011).

In all, study conclusions on experiences during normal pregnancy are consistent with one another. However only five of the 61 included studies reported were from the US. Although Poh et al (2014) has the largest number of participants from different countries, none were from the US. Authors acknowledged this limitation of possible exclusion of men's experiences from a highly medicalized obstetrician-led care model, in comparison to European experiences in a midwife-led care model (Poh, Koh & He 2014). Further qualitative research is needed to fill these gaps in the literature and determine if presented themes apply to men in the US, to MOC, and to men who live in low resource settings.

Complications During Pregnancy and Birth

The following two LRs, composed of 28 studies, reported themes on experiences of men during complications of pregnancy. During traumatic events, such as an obstetric emergency, fathers experienced long-term emotional impact (Elmir & Schmied, 2015). Fathers felt stripped of their role, and ultimately powerless while craving more information about the medical situation, and their partner or baby's health (Elmir & Schmied, 2015). Fathers experienced guilt for not acting quickly during an emergency or thinking their actions could have prevented the trauma that occurred (Elmir & Schmied, 2015). These long-term effects also affected the intimacy and romantic relationships between couples, as they tried to cope and process information with unanswered questions (Elmir & Schmied, 2015).

When fathers supported partners with postpartum depression, anxiety or psychosis, they similarly experienced neglect and found themselves needing information about mental health changes (Lever Taylor et al, 2017). However, findings suggested that men are reluctant to ask for help because of pressure of conforming to masculine roles and being strong. Partners expressed acknowledgment that support groups are helpful, but realized their reluctance to participate.

When fathers did participate, not all thought it was helpful; some perceived the information given caused more stress. Additional stress was experienced when fathers perceived a delay in treatment for their partner. Men lacked information about their partner's condition and perceived inadequate care was given (Lever Taylor et al, 2017).

Lever Taylor et al. (2017) was the only study that reported a theme of men's ambivalence and indifference with regards to their partner's mental health changes. Further research is needed to determine to what extent ambivalence is experienced and under what circumstances. Five of the studies from the Lever Taylor et. Al (2017) LR on mental health were from the US, and may or may not apply to the experience of MOC. The Elmir and Schmied LR (2015) on traumatic pregnancy did not include any men from the US. Examined through the CRT lens, response to traumatic birth and mental health during pregnancy for MOC are likely to differ from their White counterparts and research in this area is urgently needed.

Preterm Birth and the NICU

The final two LRs reported men's experiences during PTB and in the NICU and included 23 studies. Researchers describe a full range of emotional changes and informational needs of the father during an unexpected PTB and after discharge form the NICU. Fathers expressed their experience of having a preterm baby as an emotional roller coaster, with attempts to cope and represent themselves as both bread-winner and caregiver (Provenzi & Santoro, 2015). During the unexpected event of PTB, feelings of stress, fear, depression and shame dominated fathers' experiences (Al Maghaireh et al, 2016). During the NICU stay, fathers expressed stress over hospitalization, a changing of their role, and impact on their own emotional and physical health (Al Maghaireh et al, 2016). As their infant needs increased, so did men's experience of role inadequacy (Al Maghaireh et al, 2016). Some fathers described feeling afraid to hold their

preterm baby and feeling disconnected, but those who participated in skin-to-skin holding and caregiving activities accepted their transition to fatherhood more smoothly (Provenzi & Santoro, 2015). One individual study conducted in Iran described the experience of fathers who were immigrants and low socioeconomic status (Heidari et al., 2012). These fathers experienced more stress and shame of going back to work while coping with a preterm baby (Heidari et al., 2012). When NICU staff did not engage fathers, they felt unwelcomed and excluded from their own family and perceived role (Al Maghaireh et al, 2016).

Al Maghaireh's study (2016) did not report on studies from the US, where PTB rates disproportionately affect POC. However, Provenzi & Santoro's LR (2015) included one study from the US. Additionally, it was the only LR to acknowledge cultural and social impacts of PTB for immigrant fathers and men with low-income communities (Provenzi & Santoro, 2015). Provenzi & Santoro encouraged NICU staff to recognize cultural and social impacts to families and practice family-centered care (2015). Further research is needed to listen to MOC from disadvantaged and immigrant backgrounds in the US.

Summary and Critique of The Literature

From the review of the qualitative literature summarized in seven LRs, major themes were found to be salient throughout the continuum of experiences for men (see Appendix 3). Regardless of country or settings, uncomplicated or complicated pregnancy, men experienced role transition, mixed emotions, neglect and unmet informational needs. For men, the provision of maternity care had an impact on their experience. Less common themes were ambivalence, symptoms of pregnancy, change in relationship, and barriers to involvement. However, this literature review revealed many gaps in the research. There is a lack of research within the US context as most of the studies are from international samples. The literature from the US is

lacking research on men's experiences with positives outcomes and is concentrated on cases with negative maternal and baby outcomes, such as mental health complications and preterm birth. One LR noted the importance of social impacts on PTB and called for more research in this area. There is insufficient evidence to make conclusions about the experience of men in the US, and whether it is the same or different than men from other countries. Above all, this literature review found no published studies that explored the experience of MOC during pregnancy, childbirth, PTB, or in the NICU. Therefore, it was the goal of this research thesis to explore these experiences of MOC. As families of color disproportionately carry the burden of PTB, there is a definite need and multiple reasons to include men's experiences in this discussion. Nursing, midwifery and medical researchers must listen to the voices of MOC during the prenatal and postpartum periods. Historically, POC have been subjects of unethical research and have appropriately developed medical mistrust of HCPs and investigators. Research that begins with listening to MOC provides an opportunity for researchers and HCPs to not only build trust and improve relationships, but better understand and care for those at highest risk for PTB. Importantly, it is crucial to move the focus of research from White men during pregnancy to MOC where outcomes are worse.

Methods

Study Design and Setting

This qualitative study was embedded within a larger project conducted through the California Preterm Birth Initiative (PTBi-CA). The PTBi-CA is a multi-year research initiative striving to decrease the burden of PTB in Fresno, Oakland, and San Francisco (UCSF, 2016). Through a transdisciplinary approach, researchers have identified higher PTB rates in neighborhoods with less access to medical care, food, transportation, and more exposure to

violence (UCSF, 2016). The PTBi-CA investigators leading the parent study used focus group methodology to involve women at high medical and social risk for PTB in creating PTB research priorities. Study methods for the parent study and are described in detail elsewhere (Franck et al, 2017). Focus group methodology is an appropriate approach for this research thesis as it provides investigators a chance to listen to key stakeholders and learn from their experience (Halcomb, Gholizadeh, DiGiacomo, Phillips, & Davidson, 2007).

Fresno, CA, was chosen as the parent study pilot site the first focus groups for MOC. This city continues to carry the highest incidence of PTB for large counties in California, a reported 10.1% of live births (MOD, 2016). Additionally, women from Fresno who participated in the parent study expressed the importance of their partners within the family unit during pregnancy (McLemore et al, 2018). The PTBi-Fresno County branch was chosen as the partner community-based organization (CBO) to host and recruit participants. This group was chosen as they also assisted in hosting the parent study groups.

CBO Roles and Sample Selection

An initial meeting was scheduled with the CBO partner to agree upon roles and recruitment plan. Due to the fact that all primary investigators identified as female, the CBO identified a male co-facilitator, who was also a community leader with PTBi-Fresno, to help facilitate groups. Research shows that focus group facilitation may flow differently in groups that are mostly homogenous in regard to gender status (Hollander, 2004). Focus group days, times, and venue was confirmed by the CBO partner.

Recruitment and enrollment was conducted by the partner CBO. Male partners of women who participated in parent study focus groups were contacted first. All women from the parent study experienced a PTB or were at medical or social risk for PTB (McLemore et al, 2018).

Additional MOC were recruited using snowball sampling of recruited study participants. Snowball sampling refers to a sampling method where current participants recruit future participants for the study (Goodman, 1961). All participants identified as a POC. Male partners were excluded if they were less than 18 years old or did not speak or write in English. A recruitment flyer was created and distributed by the CBO with the intent to enroll 10-12 MOC. Men were invited to two focus groups, 2 hours in duration each, and held 4 weeks apart. Participants received $50 for participating at each group. Additionally, dinner and childcare were provided for participants.

Focus Group Procedures and Descriptions

Before each focus group, researchers, the CBO partner, and facilitators reviewed group logistics by conference call or in-person meetings. Modifications to the parent study facilitation guide were made by team members to include the specific research questions to address this study's aims. For example, new questions were included to ask about their personal health, support systems, and experience supporting their pregnant partner before, during and after delivery. Questions were agreed upon by lead investigators (see Table 2 below). Reminder and confirmation calls were made one week and two days before focus groups.

In the first focus group, a grounding exercise was conducted by the male co-facilitator and introductions were made of the research team and guests. Participants were asked to share an introduction of their experiences of pregnancy and/or PTB. Facilitators followed the Facilitation Guide (Franck et al, 2017) to further illicit experiences and uncertainties from participants. Following the methods of the parent study, researchers helped participants develop a list of uncertainties about their experiences of PTB (Franck et al, 2017). Uncertainties were recorded on flip charts for participants and investigators to review.

Table 2: Focus Group Questions

1) Describe your interactions with healthcare providers and staff	10) Can you describe your experience(s) of seeking health care during your partner or spouses' pregnancy? • What stands out in your mind? What questions did you have? • What would you change about this experience? What would you do differently?
2) What do you perceive as barriers and facilitators to seeking healthcare?	11) What things did you want to know that your health care provider couldn't answer for you or your spouse?
3) What does health mean to you?	12) What things did you wonder about after talking with family or friends or after reading about them?
4) What have you experienced while supporting your spouse or partner during pregnancy?	13) What was your experience like with having a baby born early?
5) How would you describe your own health during this time?	14) When you hear that families of color in Fresno have such high rates of preterm birth, what questions does that bring to mind for you?
6) What emotional and mental changes did you experience?	15) Do you have any unanswered questions or an uncertainty about what causes preterm birth and how to prevent it?
7) How would you describe your support system?	16) What about treatment of babies and support for families?
8) Where you working or taking care of other children?	17) What questions do you have about the NICU experience?
9) What have you observed in the experiences of other men of color in your family or community?	18) How do you think that answering that question through research will help other MOC/ families?

The second focus group occurred four weeks after the first session. Participants were welcomed and asked to respond to questions 1-3 in Table 2. These questions were specific to men's health. Additionally, participants were asked to share their reflections, as well as hopes for how this research could benefit their families and communities.

Data Collection

Focus groups were recorded and then transcribed by an outside organization. Researchers used flip charts and field notes to record answers to generated questions. Notes were reviewed for content and merged on a single Word document for analysis.

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Data Analysis

Thematic analysis (Braun & Clarke, 2006) was used to analyze and report patterns and themes within the data set. Thematic analysis is widely used and fitting for this analysis of the focus group transcripts and field notes. Specifically, inductive analysis, rather than theoretical, was used as the coding process did not fit into a preexisting coding frame and was not driven by the researcher's area of interest (Braun & Clarke, 2006). The data were analyzed using the following six steps: 1) Familiarize yourself with your data, 2) Generate initial codes, 3) Search for themes, 4) Review the themes, 5) Define and name themes 6) Produce the report (Braun & Clarke, 2006). In order to become familiar with the data, recordings of focus groups were first listened to, while researchers simultaneously read over transcript approximately five times. Edits were made to transcript to remove subject identifiers and corrected for accuracy. Manual line-by-line coding was done by the primary investigator to gather initial codes represented in the transcript. Codes were written on working transcripts as comments next to each line. Next, a second investigator conducted chunk-by-chunk coding after initial codes were identified. A list of codes was developed and placed in a code bank with references to important quotes from men's experiences. The primary investigator assigned tally marks to initial codes while simultaneously reading the transcript two more times for accuracy. Initial codes and sample quotes were placed in an Excel document and sent to the research team to search for sub-themes in the data. Broader themes were then pulled out of the data to create a thematic map of men's experiences (Figure 3). Each identified theme was further defined and named. Final themes that represented the experiences of MOC were reviewed by thesis committee and finalized.

To ensure qualitative rigor and trustworthiness, credibility, transferability, dependability and confirmability are addressed according to Thomas & Magilvy (2011). Research findings and

themes were credible as they reflected direct quotes from the participants. During the second session, participants gave feedback and confirmed the themes identified from the discussion during the first group. Transferability was established by providing demographics of participants and geographic information to describe the main characteristics of the population from which the sample was derived. Dependability was established as the following were discussed in this thesis: the purpose of study, selection of participants, methods, data collection and analysis, and presentation of results (Thomas & Magilvy, 2011). Confirmability, which requires introspection of the researchers about their own perspectives and biases that may arise (Thomas & Magilvy, 2011), was established. Two of the primary investigators, and as well as the male facilitator, culturally identified as a POC. Lead investigators reflected on their own experience of discrimination and/or being a person with a religious background, so as to minimize the influence of their own bias on the findings. During focus groups discussions, participants were asked for their own definitions of the themes and common words used to describe experiences. Finally, investigators reviewed the themes from the two sessions and came to consensus for results as suggested by Sandelowski et al (2002).

Ethical Considerations

This study was reviewed and deemed exempt from human subjects protection procedures by the University of California, San Francisco Committee on Human Research (# 15–15698). This exemption was based on Institutional Review Board Criterion 2: Use of educational tests, surveys, interviews, or observations of public behavior. Participants were notified that a portion of the meeting was to be recorded with their approval, and all identifying information was removed from transcripts to maintain anonymity. Participants received $50.00 in acknowledgement for participation in each session.

Results

Sample Description and Characteristics

In total, twelve men participated in two consecutive focus groups (N=12). Eleven MOC attended the first group, and one new participant joined the second group. Table 3 shows the demographic characteristics of participants. Six men identified as Latino or Hispanic, five identified as African-American, and one identified as Asian American. All participants were married, from the Fresno County area, and all but two men were employed. Given the small sample of participants, the demographic table is limited to maintain confidentiality.

Table 3: Participant demographic table

Participants	Reported Marital Status: Married	Reported Employment	Reported Full-term pregnancies	Reported Preterm Birth	Reported Cesarean section	Reported Adverse event during pregnancy or birth
12	12	10	10	7	9	10

Men's Health

In order to contextualize the discussion around their experiences of pregnancy and birth, men were first asked general questions about their definition of health, barriers and facilitators to seeking care, and interactions with healthcare providers. Men defined good health to be a mix of healthy behaviors with physical, mental, spiritual, and relational components. Being healthy comprised more than staying active or having good nutrition. Health included maintaining close relationships with family, going to church or mass, coping well in stressful circumstances, and having an outlet for personal self-care. Barriers to health included men's expressed emotions of ambivalence and avoidance to seeking healthcare for themselves. For some, going to a healthcare

provider “costs too much, hurts too much, and takes too much time”. One participant stated that men are “hard-headed” and like to “tough it out”. Participants agreed that is was easier to “be your own doctor”, delay treatment, and use natural or familial remedies for most health concerns.

When asked about their own interactions with HCPs, there was very little discussion. One participant explained the importance of communication and acknowledged his own quiet behavior during appointments. He preferred providers who asked probing questions to help him open up. When men were asked in session two about their own health interactions, interestingly, men reverted to sharing stories about their wife during pregnancy or other family members. Most of the discussion was focused on their experiences during pregnancy and PTB.

Participants were very concerned about increasing high rates of PTB within Fresno and the Central Valley. Following the methods of the PS, participants were asked to create a list of research priorities for future PTB investigations. Interestingly, participants listed the topic of men’s health last on their top 10 research topic priorities. Men believed their own health was not a major contributor to their wife’s risk of having a PTB, but that it was important to the outcomes of PTB.

Major Themes from Experiences of Pregnancy and Birth

The following four major themes emerged from the analysis of the experience of MOC during and after pregnancy: (1) “Being the Rock”: Providing comfort and security; (2) “It’s a blessing all the way around”: Keeping faith during uncertainty; (3) “Tell me everything”: Unmet needs during pregnancy and delivery; (4) “Like a guinea pig”: Frustration with the healthcare system. Themes were experienced throughout antepartum, intrapartum, and postpartum periods, and they are described below in more detail with specific illustrative quotes from participants.

Theme 1: "Being the rock" Providing comfort and security.

Every participant described the desire to be the stable "rock" and foundation for their wife or partner during pregnancy. Some men described this desire as innate and central to their role in the family. There was a general consensus that their role as fathers should be to support their partners and make them feel comfortable at all times.

One participant described his experience of supporting his wife:

> If I want to cry, you know I'm not going to cry because I can't allow her to feel that I'm weak, but she needs to have that rock… that's kind of our role and that's what we have to do, so we do it, but that can be difficult.

Another participant explains his reaction when his wife wished she was pregnant again, so he could treat her differently:

> I didn't realize I treated her any different, but she said I took care of her more and made sure I took care of a lot of things…I like to contribute to that, to the stress levels being lower.

Participants agreed that their partner was a main priority, especially when the time was closer to delivery.

Theme 2: "It's a blessing all the way around" Keeping faith during uncertainty

A second central theme pertains to a balance between faith, fear, and uncertainty. Unprompted, many participants identified with a religious background, and some specifically with Christian or Catholic faith. One participant simply stated:

> It's [Faith] the first priority because that's where you go.

Men expressed feeling uncertainty and fear, like a "roller-coaster", when the status of their baby's health was unknown, after receiving an undesirable diagnosis, after a bad outcome, or when HCPs did not have answers. Ten of the participants reported experiencing trauma or an adverse birth event, and seven participants also had one or more PTB experiences. However,

they expressed that their faith in God kept them grounded. One participant explained his fear when his family found out their twins had twin-to-twin transfusion, which required surgery.

> …Everything was going good up until that one doctor told us something was wrong… from that moment to their birth, every day was scary… So we just kept strong in our faith…I'll never forget because throughout the whole process there were so many people, complete strangers…and they would tell us like 'I'm going to pray for you'.. For me that was God in all those people.

Three participants expressed fear and disappointment after having a bad outcome or fetal death. One participant recalls:

> Every birth something really bad happens. He [the baby] kind of made us really afraid of having another baby. Any my wife, she's like 'Just give it a try'. I wasn't really feeling good about it, but it happened.

Another participant experienced multiple PTB experiences, including fetal death. Processing through his experiences, he recalls his fear that HCPs don't have all the answers. Yet, he shares his gratitude from his child's life.

> …And the scary thing about those, what we learned is that they [the doctors] don't really know why you catch the infection and they have little information about it…He was the smallest baby that they ever seen actually alive at that time because he wasn't even a pound. So, it's a learning experience. I wouldn't change any of it for the world because I feel like it made us all stronger. Again, and he made it better for my youngest and my daughter to come into this world. So yeah, it's a blessing all the way around, you know?

Participants who experienced a PTB generally appreciated all the support from NICU nurses and staff. One participant explained his gratitude and said:

> The blessing is that I can even talk about this now. That was a really rough time with my whole family and everyone around. So, I learned so much with just NICU and preemies and the services that come behind that and the support groups... And we used every bit of it. It helped us out a lot.

All participants had hopes for healthier babies for their Fresno communities and hoped research will find answers moving forward. They agreed that pregnancy "should be the best time of your life".

Theme 3: "Tell me everything" Unmet needs during pregnancy and delivery

"Are there any?" Needing support services for themselves and community. The majority of the discussion for both focus groups was centered around the third theme of unmet needs. Participants experienced a lack of support services, had diverse informational needs, and desired better communication from providers to make decisions. Participants were often unaware of support services for themselves and their community. They continued to ask throughout the discussion: "Are there any…?" The ideal form of support described by participants came in the form of a "coach", an advocate, or a pastor who would help make decisions and be a liaison between the hospital and family.

Support services were desired, not only for themselves, but for people in their community. Participants agreed that services are needed for their family members who don't know how to ask the right questions. One participant said:

> We recognized because of our backgrounds and families and the people that we work with, a lot of people don't have the knowledge to ask those questions. They don't have even the certainty or even the courage to ask the doctor a question. So we were fortunate. But my questions is, is there something, are there certain people to help those people that are not able to defend themselves?

Participants claimed that "there's nothing out there" and these services "should come without even asking". They inferred that this advocate would help other not be taken advantage of within the healthcare system.

Support was also desired from HCPs during moments of uncertainty. They acknowledged that providers can't get emotionally involved, but wanted providers to make more referrals and

show emotion. Spiritual support was very important for the participants.

One participant remembered a special moment when a doctor "broke the norm":

> I remember that day that my wife and the babies were having surgery, when the doctor told us, 'They might not make it through the surgery'. I was in the waiting room and my knees were like shaking… Our doctor, the specialist, asked if he could pray with us. And to me that's something I'll never forget for a doctor to call you over, put his hands around you and your wife and pray.

Needing information to prevent complications and promote healthy pregnancy. Informational needs were also very important to participants. Participants wanted information about how to best prevent chronic conditions like diabetes or high blood pressure. They wanted to know if their own health had an influence of their child's health, and why some had pregnancy symptoms like cravings, acid reflux and weight gain. Participants resorted to finding answers on Google and other internet sources when they did not get answers from their providers. One participant explained:

> I remember asking but I couldn't get a clear-cut answer on if there was anything that we can do to prevent it [diabetes].

Another participant said:

> I believe in my wife they found protein in her urine and she was diagnosed with preeclampsia… but they had already seen that there was protein about a month to a month and a-half before that. They didn't tell us because they said it wasn't enough for it to cause a problem. But we didn't know what that meant.

Communication needs to make decisions. All participants expressed a strong desire for better communication between themselves and the providers. Multiple examples were shared of experiences where providers did not disclose or withheld desired information. Participants recognized a clear gap in communication and expressed that some providers were hard to

understand. Additionally, participants wanted to make decisions for their wives and families, but do not feel supported to do so. One participant said:

> They come in here a couple of minutes and it's always the doctor leaves and the nurse says, 'Okay, so let me explain what he just said'. Why is it like that?

Another participant agreed saying:

> Yeah because there's like a gap in between the doctor. The doctor just come in and blah, blah, blah and boom!

Another said:

> [There's] Like a barrier in between patient and doctor. They are afraid. It's not like in Mexico.

Participants wondered if there were standards for all providers to give the same type of communication to patients. They speculated that providers practice differently depending on where patients receive care. One participant asked:

> Does everybody receive the same standards? Because we know. We don't want to say it. We know, but depending what hospital you go to, depending what insurance you might have, depending who you are, how you look, you're not going to get those resources.

After reflecting on previous pregnancies, one participant stated what he would tell his next provider:

> I had to tell my doctor, 'Tell me everything. I don't want to have to read between the lines.' I want to know everything because I just do, you know.

Some participants gave recommendations for how providers should communicate. Participants agreed that information should be given to all parents without asking. This information was important for decision making and should be available to everyone. One participant explained that this exchange was something that even his mechanic does when getting his car fixed.

> Well, it's like when you take your car in to do maintenance and you paying to do maintenance. They need to tell you that.

Another participant said:

> But if they explain to me as a parent, they say like 'Look, there's something here. But we don't want to do anything yet because the procedure and the medication or whatever it is that we do to try to get rid of that might cause more damage' And that allows me to have both sides of the argument and then decide what I as a parent want. Now, I don't know if they give that information or not, but that's something definitely that should be here.

Participants hoped that in the future, all families will have the necessary information to make their own decisions.

"Is there a better way?": Desire to build relationships with HCPs. Participants felt that building a better relationship with their partner's HCP was also a priority. Participants described feeling ignored and avoided during interactions while attending appointments with their wife.

One participant recounted his experience while trying to seek information:

> Sometimes I would have questions and would try to talk to the nurse, and she would try to avoid like talking to me, for no reason you know. … So she would try to have the conversation with my wife, not with me. Even though I was not the patient, but I wanted to know what was going on.

He continued:

> I remember one time with a different nurse. I tried to ask you know, because I would see the monitor, that they put on my wife, different lines. And I asked her 'So what does those lines mean?' I would see them going up and down. She didn't say nothing. She didn't explain it to me. I just wanted to know what it was, you know. I just wanted to hear an answer, 'It was the heartbeat' or I wanted just a brief explanation of what it was.

Participants appreciated providers who took time to answer their questions.

Preference of communication with nurses. Throughout the discussion, participants agreed they preferred communicating with nurses, and in particular during decision making. They felt nurses had the best relationship with their family and should have more power to make decisions. One participant explained:

> And I always found myself, 'Okay, doctor. You can go ahead and leave. I'd rather just talk to the nurse.

Another stated:

> They come in here a couple of minutes and it's always the doctor leaves and the nurse says, 'Okay, so let me explain what he just said'. Why is it like that? I would rather have the nurse come to him and say or be able to say, 'Hey, we should do this test or we should do this'.

Participants found that nurses were an important source of support during a hospital stay. They trusted nurses more because they had time to develop a relationship. Participants questioned the significance of the HCP role and advocated for increased nurse authority.

Another participant said:

> Do nurses have the authority to make decisions? Because they're the first ones to build rapport with the patient, you know. They get to know the baby. They're coming in every hour or so to check on the baby.

Another agreed:

> Because everything is, 'We've got to wait for the doctor and his shift starts at 8:00pm'. I'm positive the nurse knows just as much.

"Is this preference or what is best for baby?": Disagreement with type of birth.

Participants were generally frustrated and confused with the type of birth their wife or partner experienced. Nine of the twelve men experienced unexpected C-sections and still had many doubts that the right decision was made for their family.

One participant explained his experience:

> Yet the physician almost once we got to full term insisted that we have a C-section. And there was no explanation as to why other than to say 'Oh, this baby looks like it's going to be big'

Another participant wished he had more information during delivery and said:

> We went Wednesday in the afternoon. Saturday night they did the ultrasound and they said he was fine. And when they did it he was upside down or the opposite direction of which he was to be born. And we were never told that. Now, if we would have known that we knew there was harm, we would have done the C-section way before as soon as we got there. Versus wait to be natural because that's what the doctor wanted to do.

Some participants valued natural childbirth and perceived C-sections to be used only in emergencies. Participants began to do their own investigation online and compared their experience to other places and even countries. One participant said:

> And then another thing too, the natural part. I think part of that process can help with ladies too. You take that away, the pushes and that stuff, your body needs some type of, to experience certain things. So either you take it away, take away the nature of it you know?

Another agreed saying:

> But I just didn't understand why, the reason why they were enforcing the C-section on her if she wanted to have a vaginal birth. But I mean they told her more than three times. And my wife, she looked up on Google that I think in Japan they promote vaginal birth. They don't use C-sections unless it is very very necessary, but otherwise they won't do C-sections.

Questions arose about outside factors that may have played a role in the decision to have a C-section, including making a profit.

One participant said:

> And really my main questions to even all the other comments and questions now that are being made, as it relates to the mother and baby is, how much does profit weigh into the decision of these physicians? It better not, but the reality is in doing some of my own research after the fact, you find that doctors, hospitals get paid more money for C-sections, which I understand it if it's necessary. But if it's not necessary, and the mothers have to go through a little more trauma with a C-section.

Other participants added:

> You have to have so many C-sections to make sure you make, you turn a profit…. Yeah, more than a preference. Is it a quota you have to meet?

Theme 4: "Like a guinea pig" Frustration with the healthcare system

Experience of discrimination based on health insurance. Throughout the conversation, participants described a difference in receiving healthcare services for their family and/or community due to the type of insurance they held. This difference was seen in the treatment of staff and providers, wait times at clinics, and services received.

One participant explained the difference he experienced:

> I've experienced both. You go there and the wait times are very limited, everyone is nice and courteous, the doctors explain everything…But at other clinics where Medi-Cal recipients, it's a lot different. The wait times are extremely long, and I understand that, probably because there are a lot of people that have Medi-Cal. But still the wait times are extremely long and then the receptionist the people there, they don't reassure you. It just like "You got to wait". But it does set a bad taste in your mouth.

Another agreed:

> I've noticed, my daughters have Medi-Cal and I have regular insurance. I can see the difference. The way they treat me for sure. When I go to my doctor, which is you know just a regular HMO, they are a little nicer, curious. Medi-Cal, when I take my daughters, they are short, and.. right rough. And I just kind of treat them nice and then they realize, "Oh Okay, he's okay". I can tell the difference, like immediately… It starts at the front desk.

Another participant said:

> Unfortunately, that whole insurance thing is real, man. I worked at a hospital and unfortunately people that had Medi-Cal, like that need certain scans, x-rays, or whatever, it shows what insurance you have right there. And if you have Medi-Cal you are going to the back of the bus.

Experimentation and mistrust of providers. Medical mistrust was a final sub-theme that emerged as participants tried to find explanations for decisions being made about their wives' pregnancy and/or delivery. During the antenatal period, certain tests and procedures seemed experimental and without reason.

One participant shared his experience when his wife had diabetes:

> Well, why is it she took all those notes down and she would keep track of everything, and then in an instant they made a decision? [C-section] Why does that happen? What's the purpose of all that detail and coming to all those appointments? What's the purpose of all her work and effort when it looks like they didn't even use it?

A participant answered:

> Like a guinea pig almost, like use us for find the results, you know? You're thinking, okay, this is going to fix the problem. But really they're still trying to figure out the problem, but using you.

Another stated:

> Is it legal for them to use you, almost as research, without you knowing basically?

Mistrust of institutions: Perceived priority on making profit. Participants believed there was a priority of institutions and hospitals on making a profit, which may negatively impact families. Fathers were suspicious of research findings, hospital visits, and C-section rates.

One participant asked:

> How much does loss of profit weigh into releasing certain research that we have determined is better for mother, patient or what have you?

Another participant mentioned:

> But with cesarean sections, you know, you get cut. You've got to go back to make sure you heal up. They get paid for every time you visit, you know.

Participants also wanted to understand if there were more Medi-Cal patients who had C-sections.

> I mean now with this that we're talking about profiting with these C-sections. I mean is there research out there based on private insurance vs. Medicaid or Medi-Cal patients?

Discussion

This is the first qualitative research specifically exploring the experiences of MOC during their partner's pregnancy and birth. Findings from thematic analysis offered some answers to our proposed research questions. During pregnancy, men found a sense of identity in supporting and caring for their wives and partners. However, some men also experienced uncertainty, fear and disappointment. Some men disclosed their faith in God and its importance for coping during pregnancy. Participants were very concerned about the high rates of PTB in their community of Fresno, CA. They do not believe their own health is a major contributor but do feel that their health and involvement can influence outcomes.

Participants identified barriers and facilitators to having a healthy pregnancy. Regarding barriers, overwhelmingly men reported they did not have enough support or information to make decisions for their family. They described their desire for external support in the form of a coach or an advocate to help "defend themselves" in a healthcare system that did not recognize their information and communication needs. They often felt like providers were difficult to understand and even withholding information. They advocated for nurses to have more authority for decision-making because of nurses' investment in patient and family relationships during healthcare encounters. Additionally, men were troubled about the differential treatment of their families and community who had public insurance. Furthermore, fathers mistrusted providers when they were not given clear rationale or explanations for management decisions. Regarding facilitators, MOC recognized that being a good support, being grounded in faith, having clear information and knowing about resources all helped have a healthy pregnancy. One notable

facilitator men reported pertained to limiting C-sections. Participants valued the natural process of birth and wondered if their wives received C-sections because it brought profit to the hospital.

These results both confirm previous research findings, and also bring to light new information of men's experiences not yet reported in the research literature. The review of the qualitative research literature prior to commencement of this research revealed four dominant themes of role transition, mixed emotions, neglect, and unmet informational needs. In this study, MOC similarly had these experiences, including neglect and lacking information as found by Steen (2011), Poh (2014), and Kowelessar (2014). While men of color, whose babies were born preterm, felt as if they were on a "roller coaster" ride, they also expressed gratitude for NICU support. New themes revealed in this study included the importance of faith, needs for support, experiences of discrimination, and mistrust of the healthcare system and providers. For MOC, unmet informational needs were often compounded by mistrust. Men questioned management decisions and experienced differential treatment. The dominant narrative about fatherhood in society has not sufficiently addressed these areas for men of any ethnicity.

Current and Future Research

Critical race theory allows these new narratives of MOC experience during pregnancy and birth to challenge and expand the dominant narrative within the research literature and society more broadly. The current narrative of men's experiences has been largely based on homogenous groups from the United Kingdom, Australia, and Sweden who live in high resource settings. Within the US, the dominant narrative of men's experiences of pregnancy has historically been based on experiences of White men (Parke et al, 2004). These experiences do not explain the narrative of MOC in the US whose partners are at increased risk for PTB. Historically, selected narratives and assumptions have been made about MOC and their role in

fatherhood. Since POC have unique stories and experiences in America due to histories of oppression (Delgado, 2017), including the experience of MOC will profoundly impact the narrative. Critical race theory challenges the body of literature to accept this limited experiential knowledge as truth (Delgado, 2017). Sharing a complete narrative allows MOC to feel validated in their experience and helps HCPs provide optimal maternity care to MOC and their families. The experience of MOC is unique and cannot be assumed to support the current dominant narrative comprised of the experiences of White men alone.

Many questions still remain unanswered in the literature. Further qualitative research is needed to explore the experience of MOC whose partners are at higher risk for PTB. Learning the experiences MOC who live in urban neighborhoods where PTB rates are elevated is a priority. Do other MOC also experience lack of support, communication barriers, mistrust and use faith to cope? Do MOC living in high income communities have different experiences than those living in low income communities? Moreover, there is no research on whether MOC have different experiences if a midwife or a physician attends their partner's birth. Additionally, further research on the types of support that MOC desire is needed. Would MOC have similar needs if they had a doula present? Do MOC in the NICU also feel supported by HCPs and encouraged to participate in caregiving? These are just a few of the many unanswered research questions that should be pursued as part of a major effort to address this critical knowledge gap and inform interventions to improve PTB outcomes.

Implications for Clinical Practice

As the dominant narrative begins to include the MOC experience, midwives and other HCP and health system leaders can learn how to better serve MOC and their families. Providers play a major role in the experience of their patients and can help mitigate negative experiences

and reinforce positives ones. Based on the experience of MOC in this study, the following recommendations for HCPs are made: 1) Expect that MOC may define their role as being "The Rock" and provider for their families and, if confirmed, work with them to identify ways to support them in this role; 2) Assess the need for increased support in the form of religious support, coach or advocate so that MOC can fully participate in their partner's pregnancy and birth and fulfill their desired roles; 3) Implement strategies to improve patient/family-provider communication, such as meaningfully including MOC in discussions during the antenatal and postnatal periods; 4) Do not withhold information - give full explanations and rationales for recommending management plans and be honest if you do not know the answer; 5) Validate the importance of the nurse-patient/family relationship and acknowledge nurses as a key participant in patient care; and 6) Ask male partners about their own experiences of mistrust and discrimination in healthcare and explain how those situations will be prevented/addressed during the current pregnancy and birth care. This last recommendation is particularly important because, as CRT states, racism is a common experience of most POC. By acknowledging this experience, MOC may feel more comfortable to share their narrative and become allies in improving PTB outcomes for their individual families and for their wider communities. Furthermore, these recommendations align closely with the Philosophy of Care of the American College of Nurse Midwives (2004), which advises midwives to uphold reverence for patient and partner experience in practice.

Additionally, healthcare system-level interventions are needed to address the issues identified by MOC in this study. First, it is imperative to involve MOC by asking them what ideas they have to better integrate men into maternity and neonatal care. Second, explicitly acknowledging and addressing the lack of diversity within midwifery, nursing and medical

professions may help decrease provider mistrust and miscommunication. Third, hospital administrations and institutions can provide accessible information about profit gains for cesareans, tests, and procedures during delivery. Building better relationships and accountability between hospitals and their patient populations can limit institution mistrust, especially for POC who have been historically and presently been abused within the US healthcare system.

Limitations and Strengths

These findings should be evaluated in light of the limitations and strengths of the study. First, the findings are based on the experiences of a small sample of MOC from Fresno, CA; therefore, they may not reflect experiences of the larger MOC population. Additional qualitative research, including focus groups and interviews, should be conducted with multiple samples of MOC to further expand and confirm these research findings. Although the sample was a racially and ethnically mixed group, further research is needed to learn about MOC experiences, both in diverse and in racially homogenous settings. Also, the exclusion criteria limited the literature search results to only English LR articles, and reviews that may have included other studies were missed if they were written in other languages. Strengths of this research included: rigorous review of prior literature in developing the novel research question, careful attention to data collection and analytic methods to ensure that findings represented credible themes from participant perspectives. Finally, this research provides actionable recommendations for researchers and for HCPs who serve MOC and their families.

Conclusions

This is the first qualitative study to focus solely on the experience of MOC during their partner's pregnancy, and their child's birth and postnatal care. It revealed a new narrative that broadens the traditional view of men's experience during partner's pregnancy, birth, and

postpartum periods. When viewed through the lens of CRT, the main thematic findings of providing comfort, unmet needs, faith during uncertainty, and frustrations with the healthcare system, can guide future research as well as clinical and institutional practice improvements. Focused interventions on father-centered communication is needed to help rebuild trust for MOC at all phases of maternal and neonatal care. More large-scale studies are needed to assess the impact of pregnancy and postnatal care provision on MOC in the U.S. Additionally, MOC need to be included in formulating solutions for health service design and implementation. Midwives and other HCPs have a significant role to acknowledge discrimination and mistrust that MOC are likely to continue to experience, and to assess needs for support and involvement in decision-making. As MOC and their families are at greater social and medical risk for PTB, their voice and experience should be included and validated as central to all future work.

References

Alio, A. P., Mbah, A. K., Kornosky, J. L., Wathington, D., Marty, P. J., & Salihu, H. M. (2011). Assessing the impact of paternal involvement on Racial/Ethnic disparities in infant mortality rates. Journal of Community Health, 36(1), 63-68

Al Maghaireh, D. F., Abdullah, K. L., Chan, C. M., Piaw, C. Y., & Al Kawafha, M. M. (2016). Systematic review of qualitative studies exploring parental experiences in the neonatal intensive care unit. *Journal of Clinical Nursing*, *25*(19-20), 2745-2756. doi:10.1111/jocn.13259

American College of Nurse-Midwives. (2004). Philosophy of the American College of Nurse-Midwives. Retrieved from: http://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/000000002729/Philosophy%20of%20ACNM%209%202004.pdf

Ball, J. (2009). Fathering in the shadows: Indigenous fathers and Canada's colonial legacies. The Annals of the American Academy of Political and Social Science, 624(1), 29-48.

Brown, A. L. (2011). Same old stories": The Black male in social science and educational literature, 1930s to the present. Teachers College Record, 113(9), 2047-2079.

Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: the SPIDER tool for qualitative evidence synthesis. *Qualitative health research*, *22*(10), 1435-1443.

Delgado, R., & Stefancic, J. (2017). Critical race theory: An introduction. NYU Press.

Ebert, L., Bellchambers, H., Ferguson, A., & Browne, J. (2014). Socially disadvantaged women's views of barriers to feeling safe to engage in decision-making in maternity care. Women and Birth, 27(2), 132-137.

Elmir, R. & Schmied, V. (2016). A meta-ethnographic synthesis of fathers′ experiences of complicated births that are potentially traumatic. Midwifery, 32, 66-74.

Franck, L. S., McLemore, M. R., Cooper, N., De Castro, B., Gordon, A. Y., Williams, S., & Rand, L. (2018). A novel method for involving women of color at high risk for preterm birth in research priority setting. Journal of visualized experiments: JoVE, (131).

Goode, Keisha, La'Nesha. Birthing, Blackness and the Body: Black Midwives and Experiential Continuities of Institutional Racism" (2014). *Dissertations and Theses 2014-Present.* Paper 423.

Goodman, L.A. (1961). Snowball sampling. Annals of Mathematical Statistics. 32 (1): 148–170. doi:10.1214/aoms/1177705148.

Garfield, C. F., & Isacco, A. (2006). Fathers and the well-child visit, Pediatrics, 117, 637-645.

Griffith, D. M. (2015). "I AM a Man": Manhood, Minority Men's Health and Health Equity. Ethnicity & Disease, 25(3), 287–293. http://doi.org/10.18865/ed.25.3.287

Halcomb, E. J., Gholizadeh, L., DiGiacomo, M., Phillips, J., & Davidson, P. M. (2007). Literature review: Considerations in undertaking focus group research with culturally and linguistically diverse groups. *Journal of Clinical Nursing, 16*(6), 1000-1011. doi:10.1111/j.1365-2702.2006.01760.x

Heidari H, Hasanpour M & Fooladi M (2012) The Iranian parents of premature infants in NICU experience stigma of shame. Medicinski Arhiv 66, 35–40.

Hollander, J. A. (2004). The social contexts of focus groups. *Journal of contemporary ethnography, 33*(5), 602-637.

Hogan, F. (2004). Strengthening families through fathers: Developing policy and practice in relation to vulnerable fathers and their families.

Ihongbe, T. O., & Masho, S. W. (2017). Racial/ethnic differences in the modifying effect of community violence on the association between paternity status and preterm birth. *Journal of environmental and public health*, *2017*.

Kowelessar, O., Fox, J. R., & Wittkowski, A. (2015). The pregnant male: a metasynthesis of first-time fathers' experiences of pregnancy. *Journal of Reproductive and Infant Psychology*, *33*(2), 106-127.

Lever Taylor, B., Billings, J., Morant, N., & Johnson, S. (2018). How do women's partners view perinatal mental health services? A qualitative meta-synthesis. Clinical psychology & psychotherapy, 25(1), 112-129.

McLanahan, S., Tach, L., & Schneider, D. (2013). The causal effects of father absence. Annual review of sociology, 39, 399-427.

McLemore, M. R., Altman, M. R., Cooper, N., Williams, S., Rand, L., & Franck, L. (2018). Health care experiences of pregnant, birthing and postnatal women of color at risk for preterm birth. Social Science & Medicine, 201, 127-135.

March of Dimes (2016). Preterm Birth. Retrieved from: https://www.marchofdimes.org/peristats

Misra, D., Strobino, D., & Trabert, B. (2010). Effects of social and psychosocial factors on risk of preterm birth in black women. *Pediatric and perinatal epidemiology*, *24*(6), 546-554.

National Institutes of Child Health and Human Development (2017). What are the risk factors for preterm labor and birth? Retrieved from: https://www.nichd.nih.gov/health/topics/preterm/conditioninfo/Pages/who_risk.aspx

Ngui, E., Cortright, A., & Blair, K. (2009). An investigation of paternity status and other factors associated with racial and ethnic disparities in birth outcomes in Milwaukee, Wisconsin. Maternal and Child Health Journal, 13(4), 467-478.

O'Brien, E. T., Quenby, S., & Lavender, T. (2010). Women's views of high risk pregnancy under threat of preterm birth. Sexual & Reproductive Healthcare, 1(3), 79-84.

Parke, R. D., Coltrane, S., Borthwick-Duffy, S., Powers, J., Adams, M., Fabricius, W., ... & Saenz, D. (2004). Assessing father involvement in Mexican-American families. Conceptualizing and measuring father involvement, 1738.

Poh, H. L., Koh, S. S. L., & He, H. G. (2014). An integrative review of fathers' experiences during pregnancy and childbirth. *International nursing review*, *61*(4), 543-554.

Provenzi, L., & Santoro, E. (2015). The lived experience of fathers of preterm infants in the Neonatal Intensive Care Unit: a systematic review of qualitative studies. *Journal of clinical nursing*, *24*(13-14), 1784-1794.

Rosenberg, L., Palmer, J. R., Wise, L. A., Horton, N. J., & Corwin, M. J. (2002). Perceptions of racial discrimination and the risk of preterm birth. Epidemiology, 646-652.

Roy, K. (2008). A life course perspective on fatherhood and family policies in the United States and South Africa. Fathering: A Journal of Theory, Research, and Practice about Men as Fathers, 6(2).

Sandelowski, M., & Barroso, J. (2002). Reading qualitative studies. International journal of qualitative methods, 1(1), 74-108.

Steen, M., Downe, S., Bamford, N., & Edozien, L. (2012). Not-patient and not-visitor: A metasynthesis fathers' encounters with pregnancy, birth and maternity care. *Midwifery*, *28*(4), 422-431.

Thomas, E., & Magilvy, J. K. (2011). Qualitative rigor or research validity in qualitative research. Journal for specialists in pediatric nursing, 16(2), 151-155.

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. BMC medical research methodology, 8(1), 45.

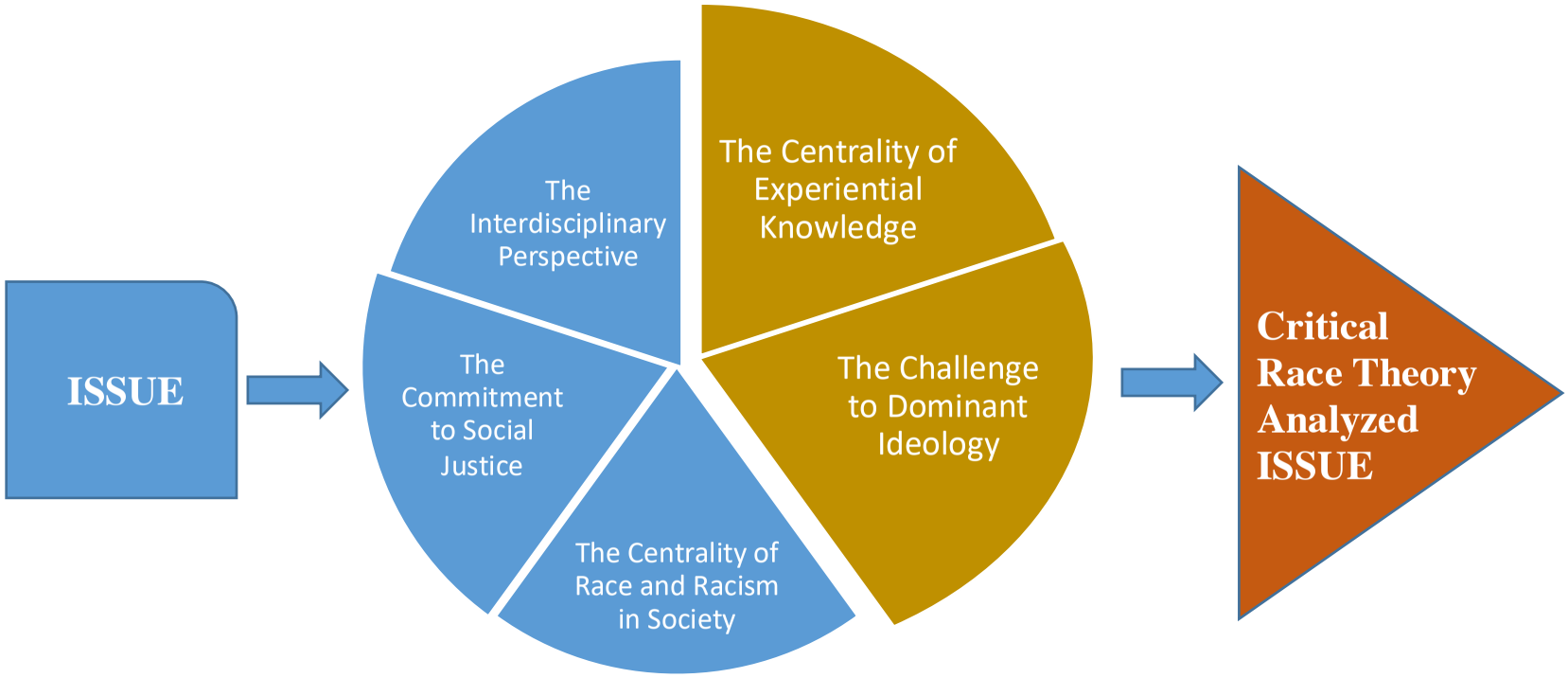
Tsai, H.-J., Surkan, P. J., Yu, S. M., Caruso, D., Hong, X., Bartell, T. R., Wang, X. (2017). Differential effects of stress and African ancestry on preterm birth and related traits among US born and immigrant Black mothers. *Medicine*, *96*(5), e5899.

University of California, San Francisco (UCSF) (2016). About the Preterm Birth Inititative, Calfornia. Retrived from https://view.publitas.com/ucsf/california-preterm-birth-initiative-program-update-2017-2018/page/4-5?mc_cid=b3d695a1f3&mc_eid=d3a28bfc26

Vedam, S., Stoll, K., Martin, K., Rubashkin, N., Partridge, S., Thordarson, D., & Jolicoeur, G. (2017). The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. PloS one, 12(2), e0171804.

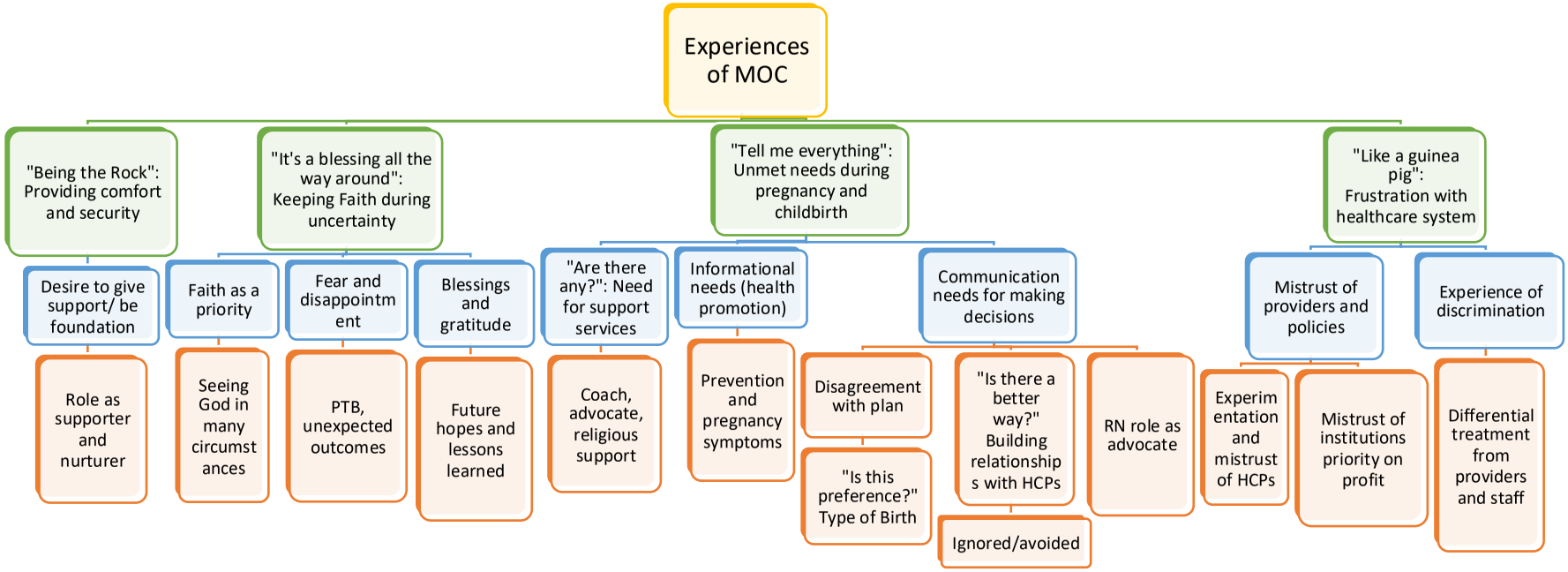
World Health Organization. (2016). Preterm Birth. Retrieved from: http://www.who.int/mediacentre/factsheets/fs363/en/

Figure 1: Critical Race Theory Framework and identified core elements for analysis



Adopted from Lee (2008) New York University.

Figure 3: Thematic map of experiences of men of color during pregnancy and birth (N=12)



*MOC, men of color. PTB, preterm birth. RN, registered nurse. HCPs, healthcare providers

Appendix 1: Articles included for analysis

First Author, date (Most recent- Oldest)	Design/Search Strategy/Critique tools	Objectives and inclusion/exclusion criteria	Characteristics of Included studies	Themes and Conclusions	Limitations and Strengths
Lever Taylor, 2017	DESIGN Meta-synthesis based on meta ethnography Electronic database search STUDY CRITQUE TOOL Critical appraisal skills programme (CASP)	OBJECTIVES To synthesize partners' views of perinatal mental health care during pregnancy INCLUSION Qualitative design Sample included partners of women who experienced perinatal mental health difficulty Reported on partners' views of professional care received by women/ family Published in journal articles, theses, dissertations, or reports EXCLUSION Focused solely on women's views Did not focus on services for perinatal mental health Not published in English	CHARACTERISTICS 20 qualitative studies 233 total participants Study Countries: United Kingdom (6) United States (5) Canada (5) Australia (2) Japan (1) Finland (1) Sweden (1) Design/Theory: Grounded theory Phenomenological Data collection: Semi-structured interviews Questionnaires Focus groups Analysis: Thematic Analysis Frame analysis Content comparative	THEMES * Feelings of neglect due to mother-baby oriented environment * An unmet need for mental health information * Ambivalence about support and involvement * Practical barriers to involvement * Differing views on support for partners * The impact on partners of the care women received CONCLUSIONS * Partners sometimes have problems identifying their own needs or accepting support due to masculinity norms * Some men perceived mental health support groups as helpful, others stated they were inadequate and caused more stress * Professionals contributed to men's stress by delaying treatment of mental health concerns * Clinicians need to identify strong social norms that prevent men from being involved * Future research should focus exclusively on partner's experience of services	LIMITATIONS * Studies mostly focused on postpartum depression, very little on psychosis, none on antenatal depression * Most studies focused on women's well-being, and not the partner's views STRENGTHS * reinforced previous literature findings on lack of mental health information for partners, and limited involvement reinforced by social norms of masculinity

Al Maghaireh, 2016	DESIGN Systematic review of qualitative research Electronic database search STUDY CRITQUE TOOL Critical appraisal skills programme (CASP)	OBJECTIVE To synthesize parent experience in NICU and determine utility of thematic analysis INCLUSION Articles pertaining to parental experience on having infant in NICU Full text, English, published between 2004-2014, qualitative design EXCLUSION Articles related to parent experience outside of NICU or parents who experienced loss after admission Quantitative or mixed design	CHARACTERISTICS 9 qualitative studies 93 total participants Study Countries: United Kingdom (5) Iran (2) Sweden (1) Australia (1) Design/Theory: Grounded theory Phenomenological Data Collection: Focus groups Semi-constructed interviews Analysis: Thematic analysis Constant comparative	THEMES *Stress of hospitalization *Alteration in parenting role * Impact of infant hospitalization on psychological and emotional health CONCLUSIONS * Unprepared for birth of infant, fathers feel stressed and fearful during hospitalization * Separation of infant from family which restricts father role * Contrasting studies reported positive NICU experiences that were welcoming and quiet and others that further isolated the parents * Environment and staff do influence father experience * Feelings of role inadequacy arose with increasing Infant needs during NICU stay *Parents who did Kangaroo care and involved did not experience major alteration in role *Infant hospitalization increased anxiety, depression, shame and other mental health concerns	LIMITATIONS * Mostly findings were from Western cultures *Experiences of parents cannot be generalized to explain experiences of both mothers and fathers STRENGTHS *Thematic analysis is useful for summarizing parent experiences in the NICU

Elmir, 2015	DESIGN Meta- synthesis (Meta-ethnography) based on Reciprocal translation by Nobilt and Hare (1988). Electronic database search STUDY CRITQUE TOOL Critical appraisal skills programme (CASP)	OBJECTIVES To report on father's experiences of complicated births that are potentially traumatic INCLUSION Papers reporting father's/ men's experiences published in English Full text and peer-reviewed journals published between January 2000 to December 2013 EXCLUSION Papers reporting on birth in general Quantitate studies Discussion papers Opinion papers Report papers	CHARACTERISTICS 8 qualitative studies 100 total participants Study Countries: United Kingdom (4) Sweden (2) New Zealand (1) Japan (1) Design/Theory Qualitative descriptive Retrospective Phenomenology Data Collection: Semi-constructed interviews Analysis: Thematic analysis Colaizzi's method Constant comparison	THEMES * The unfolding crisis * Stripped of my role: powerless and helpless * Craving information * Scarring the relationship CONCLUSIONS * Traumatic birth experiences impacted men's emotional health beyond the birth * Fathers felt very unprepared and given little information in emergency situations, even questioning their presence in the room * Feelings of guilt arose by not being active during emergency situation, and lack of support compounded feelings of despair * Some men reported their experience scarred their sexual and emotional relationship with their partner, avoiding sex altogether * Similar experiences of men are found in studies where there are no complications	LIMITATIONS * Small sample size of 100 men, all relevant studies may not have been included * Heterogeneity of birth complications with different maternity care systems STRENGTHS * Brings awareness to men's presence at birth and long-term impact of trauma * Findings show that if men are kept informed, complications may be mitigated

Provenzi, 2015	DESIGN Systematic review Electronic database search with PRISMA STUDY CRITQUE TOOL Joanna Briggs Institute (JBI) Critical Appraisal Tool for Qualitative Studies	OBJECTIVES To review experience of fathers of PTB infants in NICU INCLUSION Not stated EXCLUSION Focused on maternal experience Quantitative studies Irrelevant themes of medical risk, ill conditions, single-cases or epidemiology Theoretical Guidelines Commentary papers Dissertations	CHARACTERITCS 14 qualitative studies 153 total participants Study Countries: United Kingdom (3) Sweden (2) Norway (2) Canada (2) Iran (1) France (1) Denmark (1) Germany (1) United States (1) Design/Theory: Grounded theory Ethnography Phenomenology Qualitative descriptive Prospective Study Data Collection: Semi-constructed interviews Narrative interviews Focused ethnography Analysis: Thematic analysis Content analysis	THEMES * Emotional roller-coaster * Paternal needs * Coping strategies * Self-representation * Caregiving engagement CONCLUSIONS: * Fathers experience a wide range of emotions upon admit to NICU, from initial blackout to complete joy * Information needs and reassurance about baby and spouse health was most important * Some men coped by reengaging in work activities, trying to control their emotions * Father's' felt most welcomed and engaged in NICU when supportive staff encouraged caregiving	LIMITATIONS * Studies did not report infant characteristics, medical or social risk , which is critical * Lack of ethnic diversity among fathers enrolled STRENGTHS * Summarizes direct actions for NICU staff *Considers cultural differences and its role in PTB

Kowelessar, 2014	DESIGN Meta- synthesis (Meta-ethnography) based on Reciprocal translation by Nobilt and Hare (1988). Electronic database search STUDY CRITIQUE TOOL Critical appraisal skills programme (CASP)	OBJECTIVES To gain an understanding of first-time father's experiences of pregnancy INCLUSION Men as primary informants; first time fathers, experienced fathers, from Eastern and Western cultures Qualitative Written in English Primary research EXCLUSION Women as primary informants Postpartum, postnatal Quantitative Book reviews Dissertations Literature reviews	CHARACTERISTICS 13 qualitative studies 281 total participants Study Countries: Australia (4) United Kingdom (4) United States (3) Sweden (1) Taiwan (1) Design/Theory: Naturalistic methodology Grounded Theory Phenomenology Longitudinal ethnography Qualitative Inductive Narrative methodology Data Collection: 8/13 Semi-constructed interviews Analysis: Thematic analysis Comparative content analysis Axial coding Context text analysis Colaizzi's method Giorgi's method	THEMES * Reacting to early pregnancy * On the outside looking in * The pregnant male (symptoms of pregnancy) *A journey of acceptance * Redefining self as a father CONCLUSIONS * Most fathers go thru distinct phases during pregnancy, in spite of diverse cultural backgrounds * Men have mixed feelings during early pregnancy. Some men worried about health status of partners and baby * Others feel distant and removed throughout pregnancy * Participating in antenatal classes can further distance fathers due to mother-baby oriented environment	LIMITATIONS *Use of a meta-synthesis approach can provoke lack of transparency during synthesis and incorrect interpretations STRENGTHS *First comprehensive review that focuses exclusively on men's experiences of pregnancy *Created a model for first time fathers

Poh, 2014	DESIGN Integrative review Electronic database search STUDY CRITIQUE TOOL None	OBJECTIVES To review experiences and needs of fathers and identify gaps in literature INCLUSION Focused on father's experiences and/or needs during pregnancy and childbirth Published in English between 2002-2012 Journal/review articles Found in National University of Singapore's online library EXCLUSION Focused on fathers younger than 21 years Investigated preterm infants or diagnosed with abnormalities Summarized experiences with complications during pregnancy and birth Theoretical discussions Post-natal experiences Focused on women or healthcare professionals Measured variables not related to father's experiences	CHARACTERISTICS 19 qualitative studies 6 quantitative studies 2,371 total participants Study Countries: Sweden (10) United Kingdom (5) Australia (2) Greece (1) Taiwan (1) Thailand (1) Nepal (1) South Africa (1) Israel (1) New Zealand (1) Scotland (1) Design/Theory: Quantitative Cross sectional Qualitative Descriptive Ethnographic Grounded theory Phenomenology Naturalistic inquiry Data Collection: Questionnaires Open-ended interviews Semi-structured interviews Diary entries Focus Groups Analysis: Thematic analysis Content analysis	THEMES * Mixed feelings during pregnancy * Desire to adopt healthier lifestyles, less social activities * Father's needs - informational-searched online/media * Feelings of exclusion by healthcare providers CONCLUSIONS * Father's may have different experiences depending on delivery of maternity care experience Midwife vs OBGYN services * Similarities were seen during pregnancy with an initial apprehension followed by acceptance of pregnancy * Some father's during childbirth have anxiety being in unknown territory * Studies reported different experiences of antenatal classes, some created supportive environments while others made fathers feel excluded	LIMITATIONS *21 out of 25 articles were conducted in Western countries, participants mostly White *Different data collection periods in studies * Partners were not from vulnerable populations * Participants did not have complicated births STRENGTHS * Included impact of health policy and its role in increasing father involvement *Acknowledges differences in provision of maternity care to fathers with and midwife model vs OB model will affect fathers experiences

Steen, 2011	DESIGN Meta- synthesis (Meta-ethnography) based on Reciprocal translation by Nobilt and Hare (1988). Electronic database search STUDY CRITIQUE TOOL Walsh and Downe appraisal checklist (2006).	OBJECTIVES To identify qualitative research on fathers' experiences in high resource settings INCLUSION Articles based in high resource settings that reported experiences of fathers for up to 6 months postpartum Articles reported in any language published from Jan 1999-Jan 2010 EXLCUSION None stated	CHARACTERITCS 23 qualitative studies 719 total participants United Kingdom (7) Australia (5) Sweden (4) USA (2) Japan (1) Taiwan (1) South Africa (1) Finland (1) New Zealand (1) Design/Theory: Grounded theory Phenomenology Narratives Longitudinal ethnographic Data Collection: Focus groups In-depth interviews Semi-structured interviews Analysis: Thematic analysis Constant comparative Triangulation Content analysis	THEMES * Risk and uncertainty * Exclusion * Fear and frustration * The ideal and the reality * Issues of support * Experiencing transition CONCLUSIONS * Fathers experience being "not-patient" and "not-visitor" as an undefined space in maternity care leading to negative experiences * Desire for personal and positive transformation to fatherhood * Two studies reported positive experiences of care came through experiences of interventions like kangaroo care and getting an epidural * Most fathers see themselves as a partner, parent who have strong desire to support and be engaged	LIMITATIONS * Most included studies lacked research on what makes a positive experience for fathers STRENGTHS * Supports previous findings that fathers want to be involved, but systems limit and lead to exclusion * Gives recommendation for HCPs to engage with fathers and encourage involvement

Appendix 2: Quality Assessment of included studies

Author (year)	Aims Clear?	Context Described?	Rationale included?	Methods reported?	Findings described?	Data collection reliable?	Quality assessment of included articles?	Methods appropriate for design?	Findings valid and grounded in participant perspectives?	Overall Quality (High, medium or low)
Lever Taylor, 2017	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
Al Maghaireh, 2016	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
Elmir, 2015	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
Provenzi, 2015	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
Kowelessar, 2014	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
Poh, 2014	Y	Y	Y	Y	Y	Y	N	U	Y	Medium
Steen, 2011	Y	Y	Y	Y	Y	Y	Y	Y	Y	High
KEY: Y = Yes N= No U = Unclear										

Appendix 3: Overarching themes within the literature

Author, year	Neglect/Ignored by HCPs	Needing information	Ambivalence	Father role/transition to fatherhood	Emotions (fear, crisis, stress)	Change in relationship	Symptoms of pregnancy	Barriers to involvement
Lever Taylor, 2017	X	X	X	X				X
Al Maghaireh, 2016				X	X			
Elmir, 2015		X		X	X	X		
Provenzi, 2015		X		X	X			
Kowelessar, 2014	X			X	X		X	
Poh, 2014	X	X		X	X			
Steen, 2011	X	X		X	X			
TOTAL X's	**4**	**5**	1	**7**	**6**	1	1	1

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